

## **REMARKS**

### **I. PRELIMINARY REMARKS**

A minor amendment has been made to the specification. No claims have been amended, added or canceled. Claims 1-19 remain in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

### **II. REJECTIONS UNDER 35 U.S.C. § 103**

#### **A. The Rejections**

Claims 1-6 have been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of U.S. Patent No. 6,148,869 to Harding ("the Harding patent") and U.S. Patent No. 5,371,516 to Toyoda ("the Toyoda patent").

Claims 7 and 9 have been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of U.S. Patent No. 6,392,634 to Bowers ("the Bowers patent"), U.S. Patent No. 6,532,002 to Segalle ("the Segalle patent"), and the Toyoda patent. Claim 8 has been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of the Bowers patent, the Segalle patent, the Toyoda patent and U.S. Patent No. 6,163,326 to Klein ("the Klein patent"). Claims 10-13 have been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of the Bowers patent, the Segalle patent, the Toyoda patent and the Harding patent.

Claims 14 and 17-19 have been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of the Bowers patent and UK Pub. App. No. 2,139,762 to Prosenko ("the Prosenko application"). Claims 15 and 16 have been rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of the Bowers patent, the Prosenko application and U.S. Patent No. 6,049,341 to Lin ("the Lin '341 patent").

The rejections under 35 U.S.C. § 103 are respectfully traversed. Reconsideration thereof is respectfully requested.

**B. Discussion Concerning Claims 1-6**

Independent claim 1 calls for a combination of elements comprising “a housing,” “a first movement sensor ... adapted to sense movement of the housing relative to [a] surface,” “a movable member, associated with one of the longitudinal ends of the housing such that the movable member will engage the surface in response to a placement of the peripheral device on the surface with the longitudinal axis perpendicular to the surface, and movable relative to the housing” and “a second movement sensor ... adapted to sense movement of one of the housing and the movable member relative to the other.” The Harding and Toyoda patents fail to teach or suggest such a combination.

The Harding patent discloses a variety of input devices with multiple movable members that may be sensed to detect motion and multiple buttons that may be pressed by the user. In contrast to the invention defined by independent claim 1, none of the Harding movable members are associated with a longitudinal end of an input device. The cable 20 is located at one longitudinal end and there is nothing at the other. Moreover, none of the Harding movable members will engage the surface upon which the associated input device is placed when the longitudinal axis 40 is perpendicular to the surface.

The Office Action seeks to remedy the above-identified deficiencies in the Harding patent with the teachings of the Toyoda patent. The Toyoda patent discloses a computer input device that is shaped like a pen. The input device includes a shank 6, a support 7 at one end of the shank, a steel ball 8 that is rotatably supported by the support 7, a rotation detector with ball bearings 9X and 9Y, and a buttons (or “switches”) 18 and 19. In order to allow the Toyoda input device to held like a pen so that the user can move the cursor with a writing-like motion on a table top or other surface, the input device has a relatively small pen-like diameter. For example, with respect to the embodiment illustrated in Figure 3, the Toyoda patent indicates that the steel ball 8 and rotation detector fit within a

space that is 10 mm in diameter. Given that the diameter of the ball bearings 9X and 9Y are about 3 mm, it would appear that the diameter of the steel ball 8 would be about 5 mm. Similarly, with respect to the embodiment illustrated in Figures 6A and 6B, the Toyoda patent indicates that the steel ball 8 is 5 mm and that the support is 14 mm.

In support of the purportedly obvious modification of the Harding input devices, the Office Action states that it would have been obvious “to have used the pen type shape computer input device of Toyoda to the computer mouse of Harding so that it is can be easily handled.” [Office Action at page 5.] This statement is traversed for a variety of reasons.

First and foremost, it is not at clear what the Office Action considers the result of the purportedly obvious modification of the Harding input devices would be. Would the Harding input devices assume a long, thin pen-like shape, or would they maintain their current configurations and simply have a ball and rotation detector at one end? ***Should the rejection be maintained, applicant respectfully requests that this issue be addressed in the next Office Action in order to clarify the issues for appeal.*** [See MPEP 707.07(f).]

The Office Action also failed to satisfy the MPEP’s requirements concerning the **prior art** suggesting the desirability of the claimed invention. More specifically, MPEP § 2143.01 sets forth the following requirements:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references).

Turning first to explicit teachings, the Toyoda patent teaches that an input device should be held like a pen. It does not even remotely suggest that its teachings are applicable to an input device with multiple movable members, such as that disclosed

in the Harding patent, that is configured to rest in its ready-to-use orientation on a flat surface and is also configured such that the user can rest his or her palm thereon during use. With respect to implicit teachings, the Office Action did not identify any problem with the Harding device that would be solved by holding the Harding device like a pen. The Office Action also failed to provide any evidence concerning generally available knowledge that would have led to the purportedly obvious modification. For this reason alone, the Office Action failed to establish a *prima facie* case of obviousness.

Additionally, with respect to the “can be easily handled” basis for the rejection provided in the Office Action, applicant respectfully submits that one of skill in the art would recognize that modifying the Harding input devices in the manner proposed in the Office Action would **not** result in a device that would be “easily handled.” The Harding input devices include at least two rotatable balls, one of which is manipulated by the user with his or her finger. If, for example, the Harding input device was shrunk down to the size of a pen so that it could be held in the same manner as the Toyoda input device, one of skill in the art would understand that the user-manipulatable rotatable ball would be so small (i.e. about 5 mm in diameter) that it would be very difficult to use. If, on the other hand, the Harding input device remained the same size and one of the balls was moved to the end of the input device opposite the cable 20, the size and shape of the input device would make it very difficult to hold like a pen and use. In either case, the modification would diminish the utility of the Harding device and, accordingly, would not have been obvious.

In view of the forgoing, applicant respectfully submits that the Harding and Toyoda patents fail to create a *prima facie* case of obviousness with respect to the combination recited in independent claim 1. The rejection of claims 1-6 under 35 U.S.C. § 103 is, therefore, improper and should be withdrawn.

**C. Discussion Concerning Claims 7-13**

Independent claim 7 is directed to a peripheral device comprising “a housing defining longitudinal ends and a longitudinal axis and including a plurality of ridges configured to augment a user’s grip on the housing,” a movement sensor associated with one of the longitudinal ends of the housing such that the movement sensor will engage a surface in response to a placement of the peripheral device on the surface with the longitudinal axis perpendicular to the surface” and “a peripheral device mechanical connector.” The cited references fail to teach or suggest such a device.

The Bowers patent discloses a portable computer 10 that includes a removable pointing device 30, and a portable computer 10a that includes a removable pointing device 30a. Pointing device 30, which was referenced in the Office Action, is a “vertically invertable” device that functions as a trackball device (Figures 1 and 3) when attached to the computer 10 and functions as a mouse (Figures 2 and 4) when detached. [Column 3, lines 50-65; column 4, lines 30-59; and column 5, lines 23-34.] Additionally, as illustrated in Figures 1 and 3, the device housing has an overall box-like shape. The top and bottom sides 38 and 40 are generally planar and, together with the planar top and bottom sides of the computer base portion 12, define a continuous planar surface when the pointing device 30 inserted into the housing recess 58.

There are a variety of differences between the peripheral device defined by independent claim 7 and the peripheral device disclosed in the Bowers patent. For example, the Bowers pointing device 30 lacks (1) “a plurality of ridges that are configured to augment a user’s grip on the housing” and (2) “a movement sensor associated with one of the longitudinal ends of the housing” of the housing 32. The Office Action has taken the position that the Segalle and Toyoda patents remedy these deficiencies. Applicant respectfully submits that they do not.

Referring first to the purportedly obvious modification based on the Toyoda patent, it is not at clear what the Office Action considers the result of the modification of one of the Bowers pointing device would be. Would the Bowers pointing device assume a long, thin pen-like shape which could somehow be poked into the Bowers computer, or would it maintain its current box-like configuration and simply have a

ball and rotation detector at one end? How would the modified pointing device be secured to the Bowers computer 10? ***Should the rejection be maintained, applicant respectfully requests that these issues be addressed in the next Office Action in order to clarify the issues for appeal.*** [See MPEP 707.07(f).]

Next, and as discussed in detail in Section II-B above with respect to a similar device, the Toyoda patent does not even remotely suggest that its pen-shaped pointing device teachings are applicable to an input device with multiple movable members, such as that disclosed in the Bowers patent, that is configured to rest in its ready-to-use orientation on a flat surface and is also configured so that the user can rest his or her palm thereon during use. Nor does the Toyoda patent suggest that its pen-like teachings are applicable to pointing device, such as the Bowers pointing device 30, that is “vertically invertable.”

Turning to the other purportedly obvious modification proposed in the Office Action, the Segalle patent discloses an orthopedic computer mouse with various surfaces and ridges on the top surface and a flat bottom. The purpose of the Segalle orthopedic configuration is to maintain the hand in the “physiological position” illustrated in Figure 19. [Column 2, lines 5-9 and 44-49; and column 6, lines 19-48.] To that end, the surfaces and ridges form an overall bumpy surface that conforms to the shape of user’s palm and fingers as the user’s hand rests on the mouse. The Office Action has taken the position that it would have been obvious to modify the Bowers pointing device 30, as already modified by the teachings of the Toyoda patent, by adding the surfaces and ridges taught by Segalle. Applicant respectfully submits that such a modification is anything but “obvious.”

First and foremost, there is nothing in the Segalle patent which would even remotely suggest that its teachings are applicable to pointing device with a movement sensor at “one of the longitudinal ends of the housing such that the movement sensor will engage a surface in response to a placement of the peripheral device on the surface with the longitudinal axis perpendicular to the surface.”

Moreover, if the modified Bowers pointing device 30 assumed the pen-like shape disclosed in Toyoda, it is not clear how the Segalle surfaces and ridges could be added thereto, or why one of skill in the art would choose to do so. Alternatively, if the modified Bowers pointing device 30 simply had a roller ball on one end, it is not

clear how the Segalle surfaces and ridges, which are configured such that a palm can be placed flat on the mouse in the “physiological position,” would do anything but interfere with the user holding the mouse like a pen. ***Should the rejection be maintained, applicant respectfully requests that these issues be addressed in the next Office Action in order to clarify the issues for appeal.*** [See MPEP 707.07(f).]

Finally, it is not clear why one of skill in the art would add a bumpy surface to a pointing device that is used in combination with the Bowers computer. Clearly, such a bumpy surface would ruin the appearance of the Bowers computer 10, which has a planar bottom when the pointing device 30 is attached thereto. ***Should the rejection be maintained, applicant respectfully requests that this issue be addressed in the next Office Action in order to clarify the issues for appeal.*** [See MPEP 707.07(f).]

As illustrated above, the Bowers and Segalle patents fail to teach or suggest the combination of elements recited in independent claim 7, whether viewed alone or in combination. Applicant respectfully submits, therefore, that the rejection of claims 7 and 9 under 35 U.S.C. § 103 should be withdrawn.

Turning to the rejections of claims 8 and 10-13 under 35 U.S.C. § 103, applicant respectfully submits that the Klein and Harding patents fail to remedy the aforementioned deficiencies in the Bowers and Segalle patent with respect to independent claim 7. As such, applicant respectfully submits that claims 8 and 10-13 are patentable for at least the same reasons as independent claim 7 and that the rejections of claims 8 and 10-13 under 35 U.S.C. § 103 should also be withdrawn.

#### **D. Discussion Concerning Claims 14-19**

Independent claim 14 calls for a combination of elements comprising “a portable computer including a keyboard, a touch pad adjacent to the keyboard, a display, a housing, and a computer mechanical connector” and “a peripheral device including a housing, a movement sensor, and a peripheral device mechanical connector configured to mate with the computer mechanical connector.” The cited references fail to teach or suggest such a combination.

The Bowers patent discloses a portable computer 10a that includes a removable pointing device 30a (Figure 7). Pointing device 30a functions as a **touch pad** 92 when attached to the computer 10a and as a mouse when detached. [Column 7, lines 15-43.] It should be noted that Figure 7 includes a typographical error - reference numeral 72 in Figure 7 should have been a "92." Select buttons 46 are provided adjacent to the touch pad 92.

In contrast to the invention defined by independent claim 14, the touch pad on the Bowers computer 10a is on the peripheral device (i.e. the pointing device 30a) instead of the computer housing 12. The Office Action has attempted to remedy the deficiencies in the Bowers patent with the teachings of the Prosenko application. Applicant respectfully submits that it fails to do so.

The Office Action indicates that it would have been obvious to have "used touch pad as taught by Prosenko to the device of Bowers." Applicant respectfully submits that it is not clear whether the Office Action is indicating (1) that it would have been obvious to move the Bowers touch pad to a location adjacent to the screen 24, or (2) that it would have been obvious to add a second touch pad to the Bowers computer. Accordingly, both of these possibilities are discussed below. ***Should the rejection be maintained, applicant respectfully requests that this issue be addressed in the next Office Action in order to clarify the issues for appeal.*** [See MPEP 707.07(f).]

To the extent that the Office Action has taken the position that one of skill in the art would have been motivated by the Prosenko application to move the Bowers touch pad 92 (improperly numbered 72 in Figure 7) and associated select buttons 46 to the screen area, applicant respectfully submits that such a position is utterly unsupportable. The purportedly obvious modification would move the touch pad 92 and select buttons 46 from the area below the keyboard 14, where they can be conveniently manipulated with a finger or thumb while typing and without the user having to substantially move his or her hands, to the area adjacent to the screen 24. This purportedly obvious modification would require the user to take his or her hand off the keyboard and whatever surface is supporting his or her palm, to extend his or her arm out horizontally, and try to manipulate the now vertically positioned touch pad and select buttons that are on the other side of the keyboard. Applicant



respectfully submits that modifications such as the one proposed in the Office Action, which substantially denigrate the functionality of the device that is being modified, simply are not "obvious."

To the extent that the Office Action was trying to justify moving the Bowers touch pad 92 and select buttons 46 with the statement that such a modification "would allow the operator to keep his or her eyes on the display without have to look for a separate execution button (see lines 13-30 of Prosenko)," applicant respectfully submits that this statement fails to provide such justification. [The Office Action is apparently referring to page 2, lines 13-30.] The portion of the Prosenko application referred to in the Office Action has nothing whatsoever to do with moving a touch pad from one location to another. To the contrary, the Prosenko application is directed to a single touch pad that functions as a touch pad when touched in one way or in one place, and functions as a switch (or button) when touched a different way or in a different place. [Page 1, line 73 to page 2, line 12 and page 2, lines 52-63.] Applicant also respectfully submits that one of skill in the art would understand that user's of a touch pad/select button arrangement such as that disclosed in the Bowers patent do not focus their attention on the touch pad and buttons during use. They focus their attention on the curser and screen, much in the same way that they do when operating mouse. The select buttons 46 are located in close proximity to the touch pad 92 in order to insure that they can be easily located and actuated while the user maintains his or her focus on the cursor and screen.

Turning to the other possible interpretation of the Office Action, i.e. that the Office Action has taken the position that the Prosenko application would have motivated one of skill in the art to add another touch pad to the Bowers computer, applicant respectfully submits that this position is equally unsupportable. There is simply no reason, other than a hindsight attempt to replicate the claimed combination, to add a second touch pad (in a less convenient location than the first) to the Bowers computer.

Finally, regardless of which interpretation of the Office Action corresponds to the intended interpretation, applicant respectfully notes that "[i]ts impermissible ... simply to engage in a hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill in the gaps. The references themselves must provide some teaching whereby the applicants

**combination** would have been obvious." *In re Gorman*, 18 USPQ2d 1885,1888 (Fed. Cir. 1991) (citations omitted, emphasis added). Here, although the Prosenko application discloses interesting touch pad functionalities, nothing in the Prosenko application even remotely suggests moving a touch pad from a removable device (such as the Bowers pointing device 30a) that is used with a computer onto the computer itself.

As the Bowers patent and Prosenko application fail to teach or suggest the combination of elements recited in independent claim 14, whether viewed alone or in combination, applicant respectfully submits that the rejection of claims 14 and 17-19 under 35 U.S.C. § 103 is improper and should be withdrawn.

Turning to the rejections of claims 15 and 16 under 35 U.S.C. § 103, applicant respectfully submits that the Lin patent fails to remedy the aforementioned deficiencies in the Bowers patent and Prosenko application with respect to independent claim 14. As such, applicant respectfully submits that claims 15 and 16 are patentable for at least the same reasons as independent claim 14 and that the rejections of claims 15 and 16 under 35 U.S.C. § 103 should also be withdrawn.

### III. CLOSING REMARKS

In view of the foregoing, it is respectfully submitted that the claims in the application are in condition for allowance. Reexamination and reconsideration of the application, as amended, are respectfully requested. Allowance of the claims at an early date is courteously solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is respectfully requested to call applicant's undersigned representative at (310) 563-1458 to discuss the steps necessary for placing the application in condition for allowance.

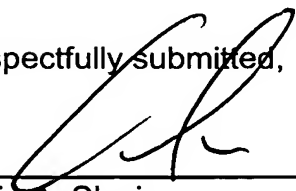
The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 08-2025. Should

such fees be associated with an extension of time, applicant respectfully requests that this paper be considered a petition therefor.

2/15/05  
Date

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